TILE OVER INSULATION IN REFRIGERATION ROOMS 320R-2019-2021

Please refer to page 7.

DETAIL B – THIN-SET ON CEMENTITIOUS BACKER UNIT (CBU)

SUITABLE SUBSTRATES
- On solid backing block-type insulation with acceptable compressive strength.

MATERIALS
- Cementitious backer unit (CBU) (ANSI A118.9) or nominal 11 mm-thick fibre-cement backer board meeting ASTM C1288).
- TILE
- GALVANIZED TIE WIRE – on 300 mm o.c. through insulation for fastening to backing.
- Rigid polystyrene insulation CAN/ULC 5701 Type A.
- BOND COAT – Single or two component liquid latex-Portland cement mortar (minimum acceptable standard ANSI A118.4 or ISO 13007 C2S1).
- GROUT – Portland cement or latex-Portland cement (minimum acceptable standard ANSI A118.6 or ISO 13007 CG1), epoxy grout (minimum acceptable standard ANSI A118.3 or ISO 13007 RG).

APPLICATION
- Cementitious backer unit (CBU) must be stable, plumb, square and tied to backing. Surface variation not to exceed 6 mm in 3000 mm or 2 mm in 300 mm. For large format tile where any side is greater than 380 mm, surface variation should not exceed 3 mm in 3000 mm and 1.5 mm in 600 mm. For tile with any edge longer than 380 mm use sufficient bond coat to ensure minimum 95% contact, with the corners and edges fully supported. Apply levelling coat if required. All joints must be taped with 51 mm fibre-mesh tape, filled with a dry-set or latex mortar and sanded. Apply thin-set bond coat to cementitious backer unit (CBU), fibre cement backer board using proper notched trowel. With pressure, apply a coat of mortar by using the trowel's flat side to key the mortar into the substrate. Apply additional mortar, combing it in a single direction parallel to the tile's shortest dimension, with the trowel's notched side. Place the tiles firmly into the wet bond coat. Push the tiles back and forth in a direction perpendicular to trowel lines, to collapse the mortar ridges and to help achieve maximum coverage. Ensure proper contact between mortar, tile and substrate by periodically lifting a few tiles to check for acceptable coverage. Use sufficient bond coat to ensure minimum 95% contact with back of tile (it may be necessary to back-butter the tile in order to meet this requirement). Beat mosaic tile into position. Remove excess mortar from the joint areas so that at least 2/3 of the tile depth is available for grouting. Allow bond coat to cure. Force grout into the joints with a rubber grout float. Make sure all joints are well-compacted and free of voids and gaps. Remove excess grout from the tile surface and clean.

OTHER CONSIDERATIONS
- Design of vapour retarder and reinforced concrete slab by others. Floor should be sloped 20 mm per 1000 mm. Provide drains as required. Latex additive use in place of water is recommended for Portland cement bond coat and may be used in modification of mortar bed.
- Drains should be designed to permit drainage of water at the tile surface and the surface of the waterproofing membrane. A drainage layer may be incorporated over the waterproofing membrane as recommended by the manufacturer. For drainage see Detail 326DR-2019-2021.
- Refer to Notes For The Professional and 301MJ-2019-2021.
- Refer to Detail 319SR-2019-2021 Detail B for drain.
- Waterproofing membrane if required must be specified. (ANSI A118.10) Follow manufacturer's recommendations.
- If waterproofing membrane is not specified, a slurry bond coat must be applied to concrete slab.
- For heavy vehicular traffic, confirm compressive strength of insulation by manufacturer.

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